

**AMENDMENTS TO THE CLAIMS**

Please amend the claims in the above-identified patent application as set forth below.

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (canceled)
9. (canceled)
10. (canceled)
11. (canceled)
12. (canceled)
13. (canceled)
14. (canceled)
15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (new) A power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, comprising:

an asymmetrical u-shaped, circular seal body having an inner wall portion, an outer wall portion and a seat portion, wherein said inner wall portion and said outer wall portion each have a section of equal length and said outer wall portion having an extended length section;

said seat portion being perpendicularly affixed to a lower end of the inner wall portion and a lower end of the outer wall portion, wherein said inner wall portion and said outer wall portion are affixed to said seat portion whereby the axial alignment of the

inner wall portion is parallel with respect to the axial alignment of the outer wall portion;

an open, asymmetrical u-shaped channel portion being defined by an outer diameter surface of the inner wall portion, an inner diameter surface of the outer wall portion and a top surface of the seat portion;

a plurality of ribs, each of said ribs being mounted within said open, asymmetrical u-shaped channel portion, wherein each of said plurality of ribs is tangentially attached to the equal length section of the outer diameter surface of the inner wall portion and the equal length section of the inner diameter surface of the outer wall portion, and wherein a bottom surface of each of said ribs is attached to the top surface of the asymmetrical u-shaped channel portion, whereby the equal length section of the inner wall portion and the equal length section of the outer wall portion and the extended length section of the outer wall portion can selectively expand and selectively contract in relation to the forces being applied to said seal body;

an elastomer filled composite dynamic seal, said dynamic seal being comprised from a combination of elastomer and aramid fiber filled HNBR to significantly reduce the wear of the dynamic seal, said elastomer filled composite dynamic seal being structurally formed within an inner diameter of said inner wall portion;

- a rubber static seal, wherein said static seal includes an outer diameter surface of the outer wall portion and a bottom surface of the seat portion; and
  - a first radially extending lip profile affixed to an inner diameter surface of an upper end of said inner wall portion and a second radially extending lip profile affixed to an outer diameter surface of an upper end of said outer wall portion, such that the asymmetrical u-shaped, circular seal body includes the first lip profile affixed to the upper end of the filled composite dynamic seal and the second lip profile being affixed to the upper end of the extended section of the rubber static seal.
26. (new) A power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, comprising:
- an asymmetrical u-shaped, circular seal body having an inner wall portion, an outer wall portion and a seat portion, wherein said inner wall portion and said outer wall portion each have a section of equal length and said outer wall portion having an extended length section;
  - said seat portion being perpendicularly affixed to a lower end of the inner wall portion and a lower end of the outer wall portion, wherein said inner wall portion and said outer wall portion are affixed to said seat portion whereby the axial alignment of the inner wall portion is parallel with respect to the axial alignment of the outer wall portion;

an open, asymmetrical u-shaped channel portion being defined by an outer diameter surface of the inner wall portion, an inner diameter surface of the outer wall portion and a top surface of the seat portion;

a plurality of ribs, each of said ribs being mounted within said open, asymmetrical u-shaped channel portion, wherein each of said plurality of ribs is tangentially attached to the equal length section of the outer diameter surface of the inner wall portion and the equal length section of the inner diameter surface of the outer wall portion, and wherein a bottom surface of each of said ribs is attached to the top surface of the asymmetrical u-shaped channel portion, whereby the equal length section of the inner wall portion and the equal length section of the outer wall portion and the extended length section of the outer wall portion can selectively expand and selectively contract in relation to the forces being applied to said seal body;

a filled composite dynamic seal, said filled composite dynamic seal being structurally formed within an inner diameter surface of said inner wall portion;

an outer diameter rubber static seal, wherein said static seal includes an outer diameter surface of the outer wall portion and a bottom surface of the seat portion; and

a first radially extending lip profile affixed to an inner diameter surface of an upper end of said inner wall portion and a second

radially extending lip profile affixed to an outer diameter surface of an upper end of said outer wall portion, such that the asymmetrical u-shaped, circular seal body includes the first lip profile affixed to the upper end of the filled composite dynamic seal and the second lip profile being affixed to the upper end of the extended section of the outer rubber static seal.

27. (new)           The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 26, wherein the filled composite dynamic seal further comprises an elastomer filled composite dynamic seal.

28. (new)           The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 27, wherein the elastomer filled composite dynamic seal is disposed on said inner wall portion of the asymmetrical u-shaped, circular seal body between the first lip profile of the inner wall portion and the seat portion of the seal body.

29. (new)           The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 28, wherein the elastomer filled composite dynamic seal is comprised of a combination of elastomer and aramid fiber filled HNBR.

30. (new)           The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 28, wherein the elastomer filled composite dynamic seal is comprised of a combination of elastomer and bronze filled PTFE.

31. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 28, wherein the elastomer filled composite dynamic seal is comprised of a combination of elastomer and PTFE.
32. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 28, wherein the elastomer filled composite dynamic seal is comprised of a combination of elastomer and carbon filled PTFE.
33. (new)            A power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, comprising:
- an asymmetrical u-shaped, circular seal body having an inner wall portion, an outer wall portion and a seat portion, wherein said inner wall portion and said outer wall portion each have a section of equal length and said outer wall portion having an extended length section;
- said seat portion being perpendicularly affixed to a lower end of the inner wall portion and a lower end of the outer wall portion, wherein said inner wall portion and said outer wall portion are affixed to said seat portion whereby the axial alignment of the inner wall portion is parallel with respect to the axial alignment of the outer wall portion;
- an open, asymmetrical u-shaped channel portion being defined by an outer diameter surface of the inner wall portion, an inner

diameter surface of the outer wall portion and a top surface of the seat portion;

a plurality of ribs, each of said ribs being mounted within said open, asymmetrical u-shaped channel portion, wherein each of said plurality of ribs is tangentially attached to the equal length section of the outer diameter surface of the inner wall portion and the equal length section of the inner diameter surface of the outer wall portion, and wherein a bottom surface of each of said ribs is attached to the top surface of the asymmetrical u-shaped channel portion, whereby the equal length section of the inner wall portion and the equal length section of the outer wall portion and the extended length section of the outer wall portion can selectively expand and selectively contract in relation to the forces being applied to said seal body;

an inner diameter filled composite dynamic seal, said filled composite dynamic seal being structurally formed within an inner diameter surface of said inner wall portion;

an outer diameter rubber static seal, wherein said static seal includes an outer diameter surface of the outer wall portion and a bottom surface of the seat portion; and

a first radially extending lip profile affixed to an inner diameter surface of an upper end of said inner wall portion and a second radially extending lip profile affixed to an outer diameter surface of an upper end of said outer wall portion, such that the



asymmetrical u-shaped, circular seal body includes the first lip profile affixed to the upper end of the inner diameter filled composite dynamic seal and the second lip profile being affixed to the upper end of the extended section of the outer diameter rubber static seal.

34. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 33, wherein the inner diameter filled composite dynamic seal, further comprises a plastic filled composite dynamic seal to withstand a large amount of deflection and significantly reduce the wear of the dynamic seal.
35. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 34, wherein the plastic filled composite dynamic seal is disposed on said inner wall portion of the asymmetrical u-shaped, circular seal body between the first lip profile of the inner wall portion and the seat portion of the seal body.
36. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 35, wherein the plastic filled composite dynamic seal is comprised of a combination of plastic and PTFE.
37. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 35, wherein the plastic filled composite dynamic seal is comprised of a combination of plastic and bronze filled PTFE.

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38. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 35, wherein the plastic filled composite dynamic seal is comprised of a combination of plastic and carbon filled PTFE.

39. (new)            The power end seal for use in sealing gear boxes of heavy duty reciprocating pumps, as defined in claim 35, wherein the plastic filled composite dynamic seal is comprised of a combination of plastic and aramid fiber filled HNBR.